US-PAT-NO: 5901252

DOCUMENT-IDENTIFIER: US 5901252 A
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TITLE: Process and apparatus for extracting and recognizing figure elements using division into receptive fields, polar transformation, application of one-dimensional filter, and correlation between plurality of images

DATE-ISSUED: May 4, 1999

US-CL-CURRENT: 382/276, 345/648 , 348/442 , 382/293

APPL-NO: 08/ 470061

DATE FILED: June 6, 1995

PARENT-CASE:

This application is a division of application Ser. No. 07/987,954, filed Dec. 11, 1992, now pending.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	3-327722	December 11, 1991
JP	3-327723	December 11, 1991
JP	4-103137	April

22, 1992
JP
4-133744
May 26,
1992
JP
4-249956
September 18, 1992

---------- KWIC ---------

Detailed Description Text - DETX (159):
Further, when the one-dimensional filter is constituted by a skeleton filter the characteristic of which can be represented by the Dirac's **.delta.-function,** an edge can be **extracted** by a simple and fast calculation process.

Detailed Description Text - DETX (758):
The "inverse polar transformation" **extracting** the sinusoidal excitation pattern is expressed as ##EQU25## In the above equation, .delta.() denotes a **delta function,** and .tau..sub.X and .tau..sub.Y denote velocity parameters in the X- and Y-axis directions. Since the **delta function** .delta.() is equal to one at the point of zero, and zero at the other points, the above equation is deformed to ##EQU26## which makes clear the content of the inverse polar transformation. This calculation is carried out in the embodiment.

Detailed Description Text - DETX (760):
The "inverse polar transformation" **extracting** the sinusoidal excitation pattern is expressed as ##EQU27## where .delta.().

denotes a **delta function,** and .sigma..sub.X and .sigma..sub.Y denote parameters in the X and Y-axis directions. Since the **delta function** .delta.() is equal to one at the point of zero, and zero at the other points, the above equation is deformed to ##EQU28## This calculation is carried out in the embodiment.